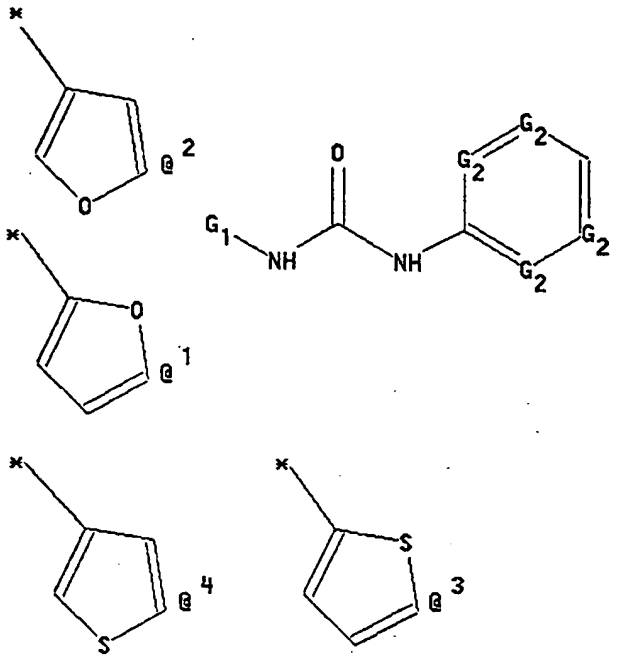
Bill Scott
12-2-97

CITE NO. LB

SUBJECT: Substructure Search

L1 STR



* = Ring or Chain Carbon
G2 = C or N

CAS REGISTRY:

L9 75 SSS FUL L1
ANSWER SET L9 HAS BEEN SAVED AS 'BSCOTT2A/A'

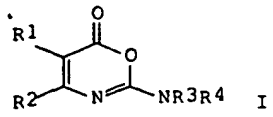
FILE 'CAPLUS' COVERS 1967 - 2 Dec 1997

L10 12 L9
L11 8 L10 AND PATENT/DT

L11 ANSWER 1 OF 8

DOCUMENT NUMBER:	107:77818
TITLE:	Aminothienooxazinones as animal growth promoters
INVENTOR(S):	Hallenbach, Werner; Lindel, Hans; Berschauer, Friedrich; Scheer, Martin; De Jong, Anno
PATENT ASSIGNEE(S):	Bayer A.-G. , Fed. Rep. Ger.
SOURCE:	Ger. Offen., 26 pp. CODEN: GWXXBX

	NUMBER	DATE
PATENT INFORMATION:	DE 3540377 A1	870521
APPLICATION INFORMATION:	DE 85-3540377	851114
DOCUMENT TYPE:	**Patent**	
LANGUAGE:	German	



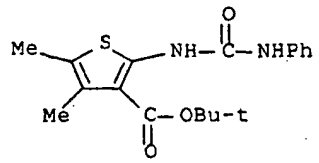
I

AB The title compds. [I; R1, R2 = atoms to complete a (un)substituted thiophene ring; R3 = H, (un)substituted alkyl, cycloalkyl, alkenyl, aryl; R4 = (un)substituted alkyl, cycloalkyl, alkenyl, aryl; R3R4N = heterocyclyl] were prepd. as development enhancers for animals. 4,5-Dimethyl-3-tert-butoxycarbonyl-2-N'-phenylureidothiophene was stirred in CF3CO2H contg. (CF3CO)2O for 1 h to give 60% I (R1R2 = MeC:CMeS, R3 = H, R4 = Ph). Rats given 25 ppm I (R1R2 = MeC:CMeS, R3 = H, R4 = Me2CHCH2) in their feed gained 19% more wt. than a control group over a 13 day period.

IT **109666-85-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclization of, aminothienooxazinone deriv. by)

RN 109666-85-5 ZCAPLUS

CN 3-Thiophenecarboxylic acid, 4,5-dimethyl-2-[[(phenylamino)carbonyl]amino]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

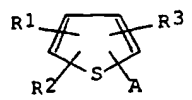


L11 ANSWER 2 OF 8

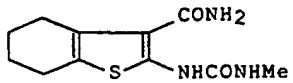
DOCUMENT NUMBER:	107:23224
TITLE:	Thienylureas and -isoureas and their preparation and use as growth promoters for animals
INVENTOR(S):	Hallenbach, Werner; Lindel, Hans; Berschauer, Friedrich; Scheer, Martin; De Jong, Arno
PATENT ASSIGNEE(S):	Bayer A.-G. , Fed. Rep. Ger.
SOURCE:	Ger. Offen., 79 pp. CODEN: GWXXBX

	NUMBER	DATE
PATENT INFORMATION:	DE 3529247 A1	861120
APPLICATION INFORMATION:	DE 85-3529247	850816
PRIORITY APPLN. INFO.:	DE 85-3517706	850517

DOCUMENT TYPE: **Patent**
LANGUAGE: German



I



II

AB Title compds. I [A = NR4CONR5R6, NR4C(OR5):NR6; R1, R2 = H, halo, NO2, CN, (halo)alkoxy, (halo)alkylthio, alkoxyalkyl, (un)substituted acyl, aroyl, alkyl, aryl; R1R2 complete a(n) (un)substituted carbocyclic or heterocyclic ring, optionally with a carbonyl

function; R3 = CN, CO2R7, CONR8R9, COR10; R4 = H, alkyl; R5,R6 = H, (un)substituted alkyl, cycloalkyl, alkenyl, aryl, heteroaryl; R7 = H, (un)substituted alkyl, cycloalkyl, alkenyl, aryl; R8 = H, alkyl, cycloalkyl; R9, R10 = (un)substituted alkyl or aryl], useful as growth promoters for animals, were prepd. by 3 methods. 2-Aminotetrahydrobenzothiophene-3-carboxamide and MeNCO in CHCl3 were refluxed 24 h to give 95% II. Rats fed with 10 ppm II mixed in their feed gained 14% more wt. than the controls.

IT **24542-96-9P 72965-39-0P 106666-26-6P**
106666-29-9P 106666-35-7P 106666-45-9P
106666-46-0P 106666-53-9P 106666-58-4P
106666-99-3P 106667-03-2P 106667-06-5P
106667-08-7P 106667-09-8P 106667-10-1P
106667-11-2P 106667-12-3P 106667-14-5P
106667-15-6P 106667-17-8P 106667-18-9P
106667-19-0P 106667-20-3P 106667-21-4P
106667-22-5P 106667-26-9P 106667-27-0P
106667-28-1P 106667-30-5P 106667-31-6P
106667-32-7P 106667-33-8P 106667-34-9P
106667-35-0P 106667-39-4P 106667-40-7P
106667-45-2P 106667-46-3P 106667-47-4P
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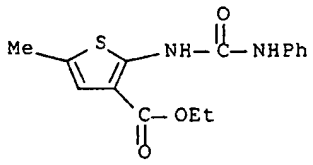
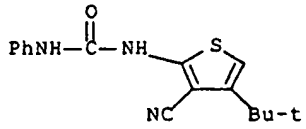
106667-67-8P 106667-68-9P 106667-69-0P
106667-70-3P 106667-71-4P 106667-72-5P
106667-73-6P 106667-74-7P 106667-76-9P
106667-92-9P 106667-99-6P 106668-00-2P
106668-01-3P 106668-06-8P 106668-08-0P
106668-09-1P 106668-11-5P 106668-12-6P
106668-13-7P 106668-14-8P 106668-15-9P
106668-16-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as animal growth promoter)

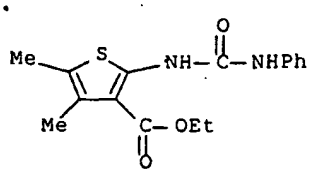
RN 24542-96-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-methyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



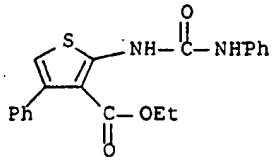
RN 72965-39-0 ZCAPLUS
CN Urea, N-[3-cyano-4-(1,1-dimethylethyl)-2-thienyl]-N'-phenyl- (9CI) (CA INDEX NAME)



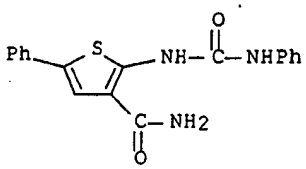
RN 106666-26-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4,5-dimethyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



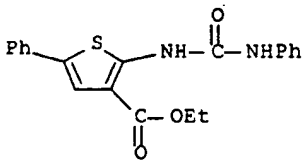
RN 106666-29-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-phenyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



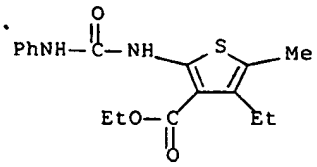
RN 106666-35-7 ZCAPLUS
CN 3-Thiophenecarboxamide, 5-phenyl-2-[[(phenylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)



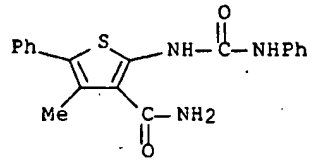
RN 106666-45-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-phenyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



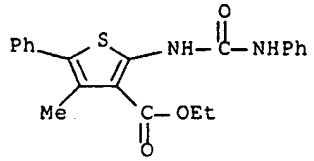
RN 106666-46-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-ethyl-5-methyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



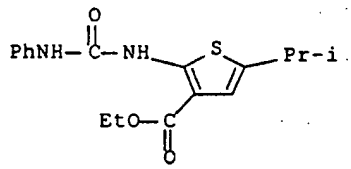
RN 106666-53-9 ZCAPLUS
CN 3-Thiophenecarboxamide, 4-methyl-5-phenyl-2-[[(phenylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)



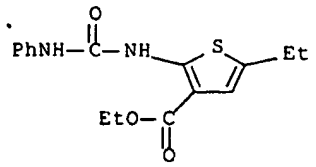
RN 106666-58-4 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-methyl-5-phenyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



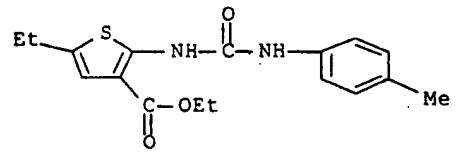
RN 106666-99-3 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-(1-methylethyl)-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



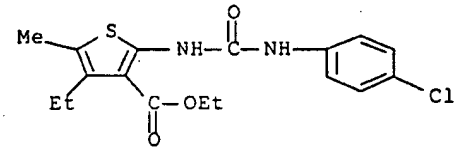
RN 106667-03-2 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



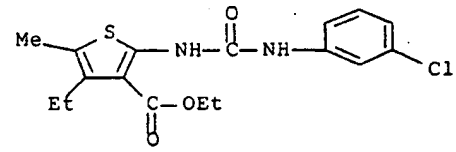
RN 106667-06-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



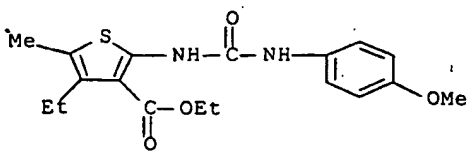
RN 106667-08-7 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-chlorophenyl)amino]carbonyl]amino]-4-ethyl-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



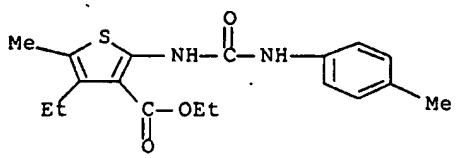
RN 106667-09-8 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(3-chlorophenyl)amino]carbonyl]amino]-4-ethyl-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



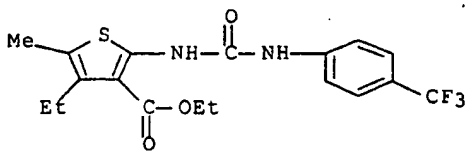
RN 106667-10-1 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-ethyl-2-[[[(4-methoxyphenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



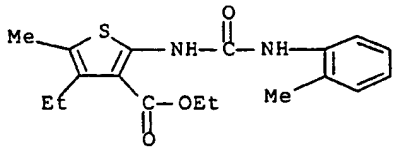
RN 106667-11-2 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-ethyl-5-methyl-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



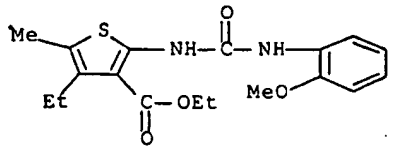
RN 106667-12-3 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-ethyl-5-methyl-2-[[[[4-(trifluoromethyl)phenyl]amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



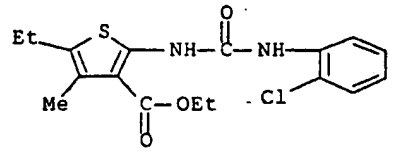
RN 106667-14-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-ethyl-5-methyl-2-[[[(2-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



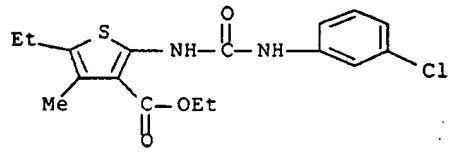
RN 106667-15-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-ethyl-2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



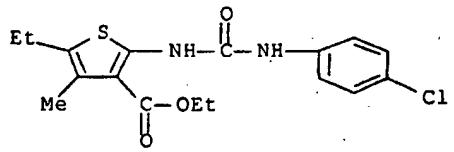
RN 106667-17-8 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-chlorophenyl)amino]carbonyl]amino]-5-ethyl-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



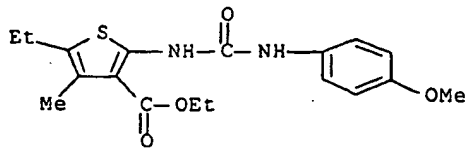
RN 106667-18-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(3-chlorophenyl)amino]carbonyl]amino]-5-ethyl-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



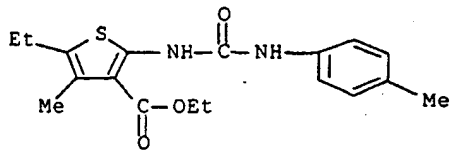
RN 106667-19-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-chlorophenyl)amino]carbonyl]amino]-5-ethyl-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



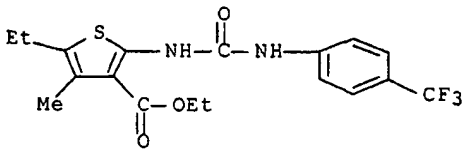
RN 106667-20-3 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[[(4-methoxyphenyl)amino]carbonyl]amino]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



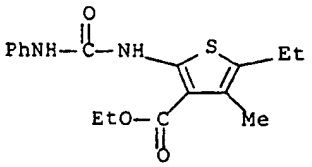
RN 106667-21-4 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-4-methyl-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



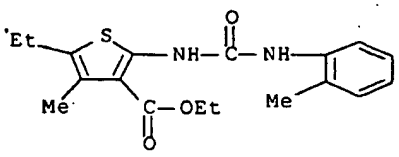
RN 106667-22-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-4-methyl-2-[[[[4-(trifluoromethyl)phenyl]amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



RN 106667-26-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-4-methyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



RN 106667-27-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-4-methyl-2-[[[(2-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



RN 106667-28-1 ZCAPLUS
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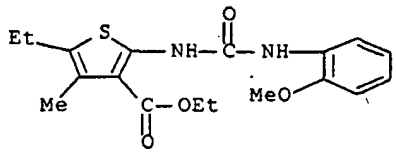
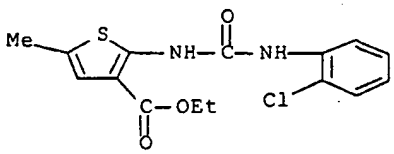
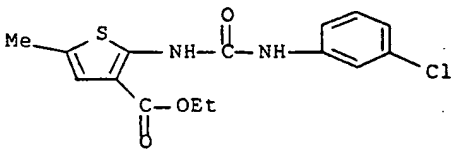


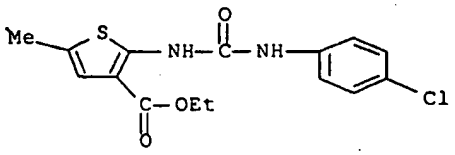
RN 106667-30-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-chlorophenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



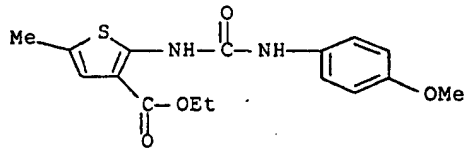
RN 106667-31-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(3-chlorophenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



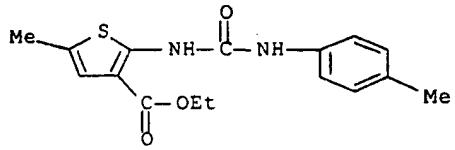
RN 106667-32-7 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-chlorophenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



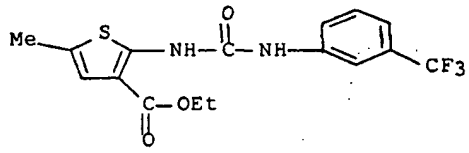
RN 106667-33-8 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-methoxyphenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



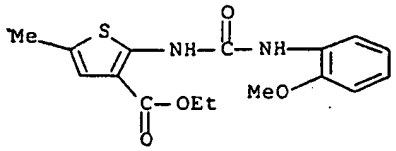
RN 106667-34-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-methyl-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



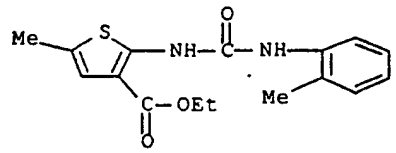
RN 106667-35-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-methyl-2-[[[[3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



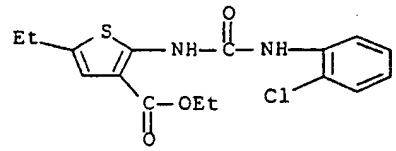
RN 106667-39-4 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



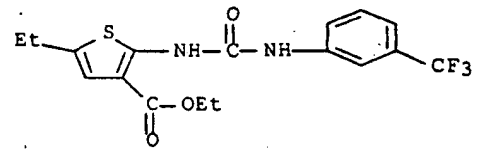
RN 106667-40-7 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-methyl-2-[[[(2-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



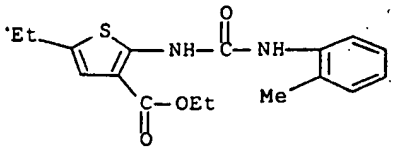
RN 106667-45-2 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-chlorophenyl)amino]carbonyl]amino]-5-ethyl-, ethyl ester (9CI) (CA INDEX NAME)



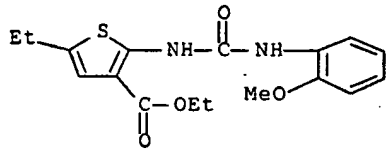
RN 106667-46-3 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[[[3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



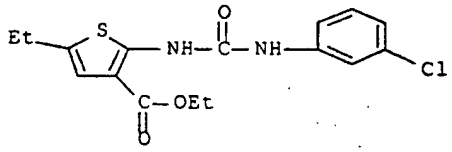
RN 106667-47-4 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[[(2-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



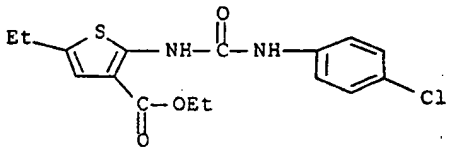
RN 106667-48-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



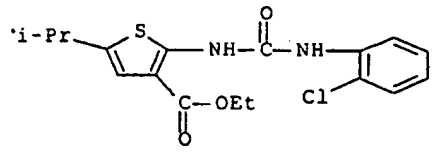
RN 106667-49-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(3-chlorophenyl)amino]carbonyl]amino]-5-ethyl-, ethyl ester (9CI) (CA INDEX NAME)



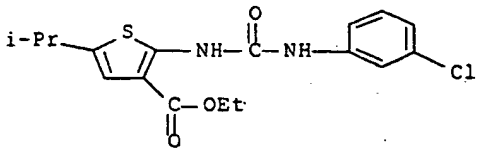
RN 106667-50-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-chlorophenyl)amino]carbonyl]amino]-5-ethyl-, ethyl ester (9CI) (CA INDEX NAME)



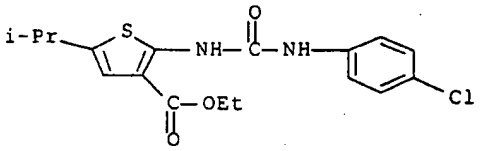
RN 106667-67-8 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-chlorophenyl)amino]carbonyl]amino]-5-(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



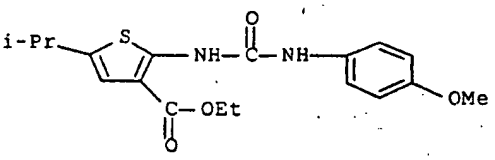
RN 106667-68-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(3-chlorophenyl)amino]carbonyl]amino]-5-(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



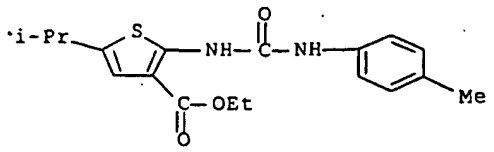
RN 106667-69-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-chlorophenyl)amino]carbonyl]amino]-5-(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



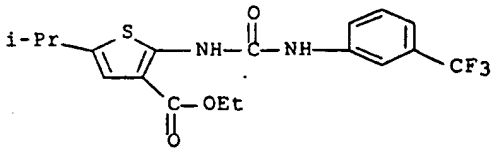
RN 106667-70-3 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-methoxyphenyl)amino]carbonyl]amino]-5-(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



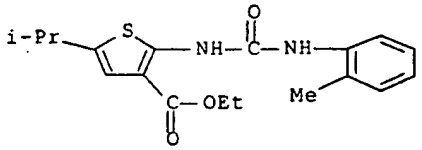
RN 106667-71-4 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-(1-methylethyl)-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



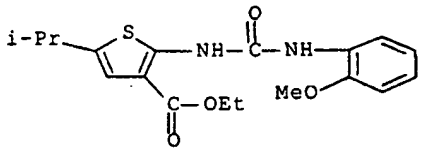
RN 106667-72-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-(1-methylethyl)-2-[[[[3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



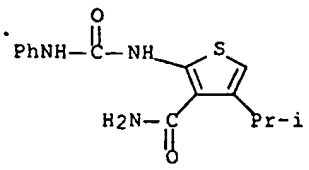
RN 106667-73-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-(1-methylethyl)-2-[[[(2-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



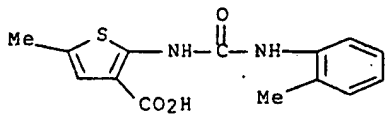
RN 106667-74-7 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-5-(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



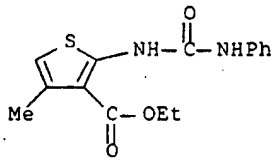
RN 106667-76-9 ZCAPLUS
CN 3-Thiophenecarboxamide, 4-(1-methylethyl)-2-[[(phenylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)



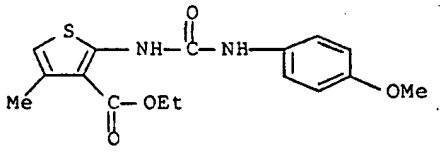
RN 106667-92-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-methyl-2-[[[(2-methylphenyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



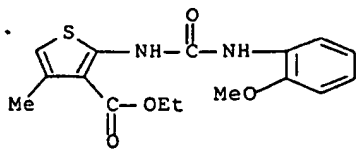
RN 106667-99-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-methyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



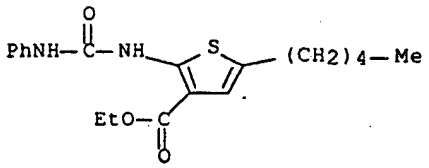
RN 106668-00-2 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-methoxyphenyl)amino]carbonyl]amino]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



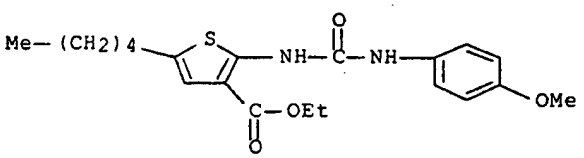
RN 106668-01-3 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



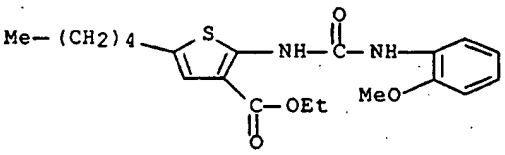
RN 106668-06-8 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-pentyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



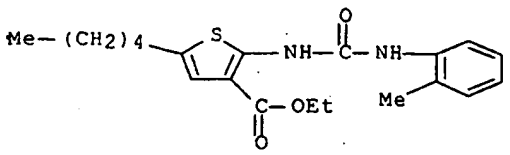
RN 106668-08-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-methoxyphenyl)amino]carbonyl]amino]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



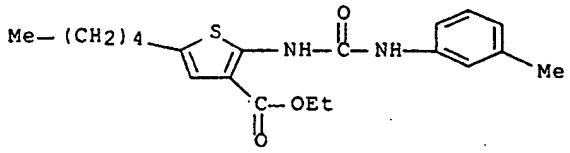
RN 106668-09-1 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



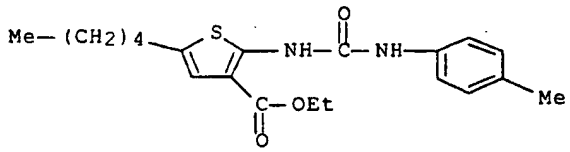
RN 106668-11-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-methylphenyl)amino]carbonyl]amino]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



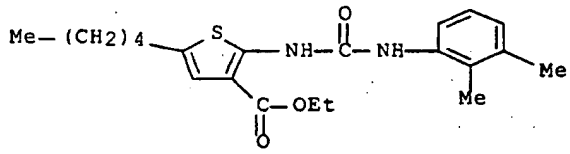
RN 106668-12-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(3-methylphenyl)amino]carbonyl]amin
o]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



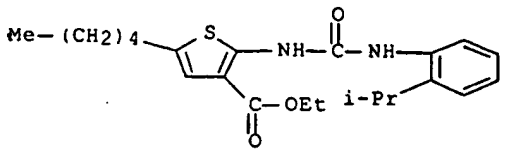
RN 106668-13-7 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-methylphenyl)amino]carbonyl]amin
o]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



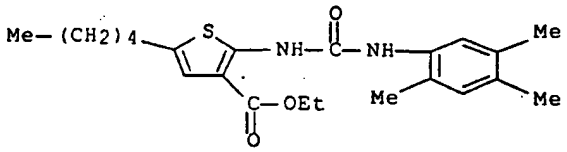
RN 106668-14-8 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2,3-dimethylphenyl)amino]carbonyl]
amino]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 106668-15-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[[2-(1-methylethyl)phenyl]amino]carb
onyl]amino]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



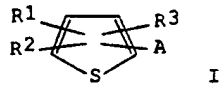
RN 106668-16-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-pentyl-2-[[[(2,4,5-trimethylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



L11 ANSWER 3 OF 8

DOCUMENT NUMBER:	106:83475
TITLE:	Productivity-increasing agents for livestock
INVENTOR(S):	Hallenbach, Werner; Lindel, Hans; Berschauer, Friedrich; Scheer, Martin; De Jong, Anno
PATENT ASSIGNEE(S):	Bayer A.-G. , Fed. Rep. Ger.
SOURCE:	Eur. Pat. Appl., 80 pp. CODEN: EPXXDW

	NUMBER	DATE
PATENT INFORMATION:	EP 202538 A1	861126
DESIGNATED STATES:	R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE	
APPLICATION INFORMATION:	EP 86-106209	860506
PRIORITY APPLN. INFO.:	DE 85-3517706	850517
	DE 85-3529247	850816
DOCUMENT TYPE:	**Patent**	
LANGUAGE:	German	



I

AB Productivity-increasing agents for livestock comprise thienylurea or thienylisourea derivs. I (A = NH2, NCO, NR4CONR5R6, NHR4, NR4C(OR5)NR6; R1, R2 = H, halogen, nitro, CN, (un)substituted alkyl, aryl, etc.; R3 = CN, COOR7, CONR8R9, COR10; R4 = H, alkyl; R5, R6 = H, substituted alkyl, cycloalkyl, alkenyl, aryl, heteroaryl; R7 = H, substituted alkyl, cycloalkyl, alkenyl, aryl; R8 = H, alkyl, cycloalkyl; R9 = H, substituted alkyl or aryl; R10 = substituted alkyl or aryl). Thus, 218 thienylurea and thienylisourea compds. were prepd. N-Butyl-N'-(3-methoxycarbonyltetrahydrobenzothien-2-yl)urea, given to rats at 25 ppm. in their feed for 13 days increased wt. gain by 13% over that of control rats.

IT **24542-96-9P 72965-39-0P 106666-26-6P 106666-29-9P 106666-35-7P 106666-45-9P 106666-46-0P 106666-53-9P 106666-58-4P**

106666-99-3P 106667-03-2P 106667-06-5P
106667-08-7P 106667-09-8P 106667-10-1P
106667-11-2P 106667-12-3P 106667-14-5P
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106667-32-7P 106667-33-8P 106667-34-9P
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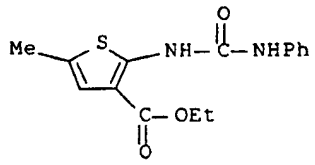
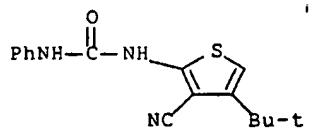
106668-09-1P 106668-11-5P 106668-12-6P
106668-13-7P 106668-14-8P 106668-15-9P
106668-16-0P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); PREP (Preparation); BIOL (Biological study); USES (Uses)
(prepn. of, as livestock productivity-increasing agent)

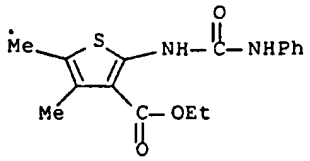
RN 24542-96-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-methyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



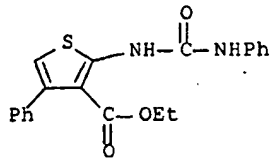
RN 72965-39-0 ZCAPLUS
CN Urea, N-[3-cyano-4-(1,1-dimethylethyl)-2-thienyl]-N'-phenyl- (9CI) (CA INDEX NAME)



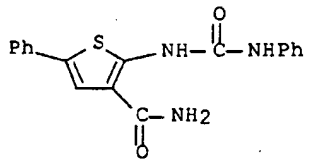
RN 106666-26-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4,5-dimethyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



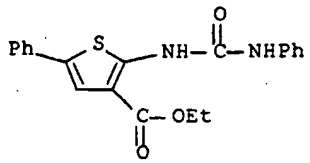
RN 106666-29-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-phenyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



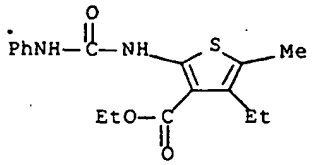
RN 106666-35-7 ZCAPLUS
CN 3-Thiophenecarboxamide, 5-phenyl-2-[[(phenylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)



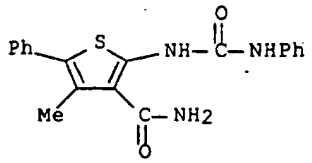
RN 106666-45-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-phenyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



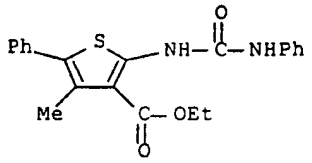
RN 106666-46-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-ethyl-5-methyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



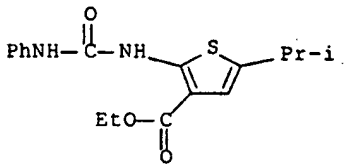
RN 106666-53-9 ZCAPLUS
CN 3-Thiophenecarboxamide, 4-methyl-5-phenyl-2-[[(phenylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)



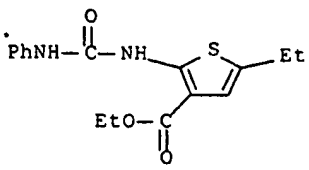
RN 106666-58-4 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-methyl-5-phenyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



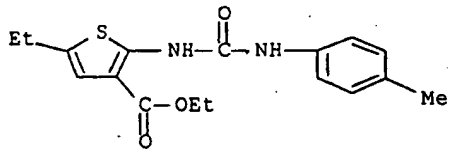
RN 106666-99-3 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-(1-methylethyl)-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



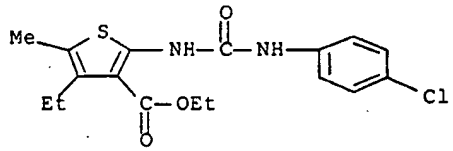
RN 106667-03-2 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



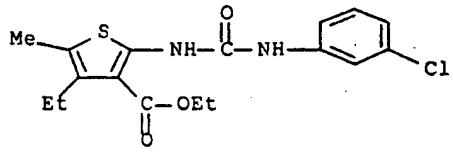
RN 106667-06-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



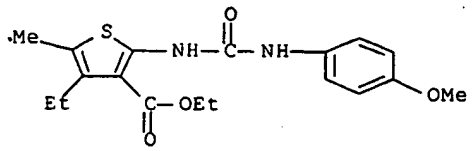
RN 106667-08-7 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-chlorophenyl)amino]carbonyl]amino]-4-ethyl-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



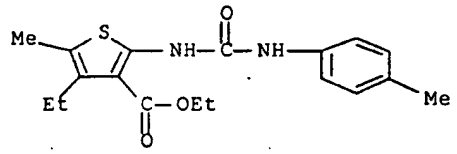
RN 106667-09-8 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(3-chlorophenyl)amino]carbonyl]amino]-4-ethyl-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



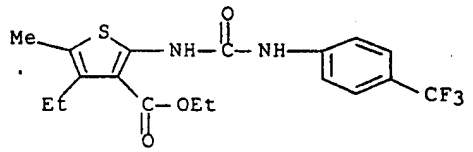
RN 106667-10-1 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-ethyl-2-[[[(4-methoxyphenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



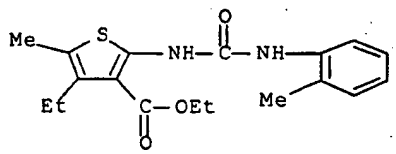
RN 106667-11-2 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-ethyl-5-methyl-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



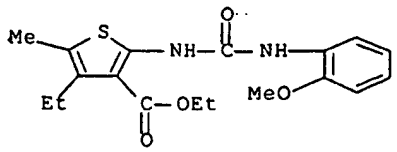
RN 106667-12-3 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-ethyl-5-methyl-2-[[[[4-(trifluoromethyl)phenyl]amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



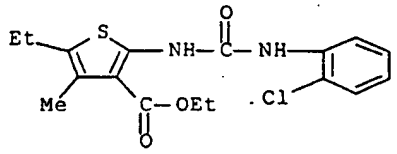
RN 106667-14-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-ethyl-5-methyl-2-[[[(2-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



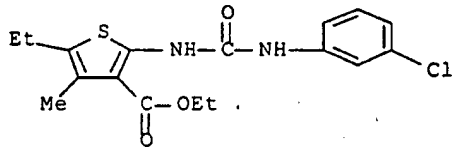
RN 106667-15-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-ethyl-2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



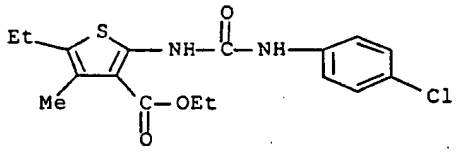
RN 106667-17-8 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-chlorophenyl)amino]carbonyl]amino]-5-ethyl-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



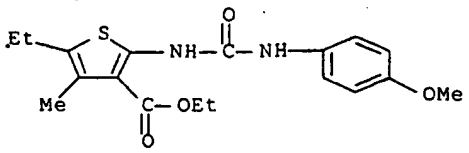
RN 106667-18-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(3-chlorophenyl)amino]carbonyl]amino]-5-ethyl-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



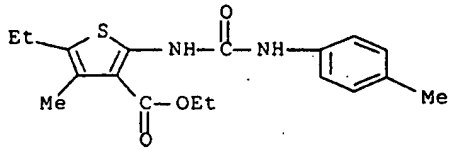
RN 106667-19-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-chlorophenyl)amino]carbonyl]amino]-5-ethyl-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



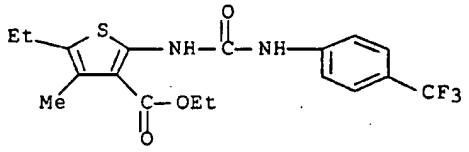
RN 106667-20-3 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[[(4-methoxyphenyl)amino]carbonyl]amino]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



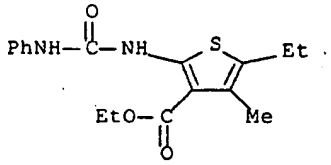
RN 106667-21-4 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-4-methyl-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



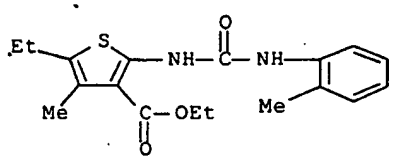
RN 106667-22-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-4-methyl-2-[[[[4-(trifluoromethyl)phenyl]amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



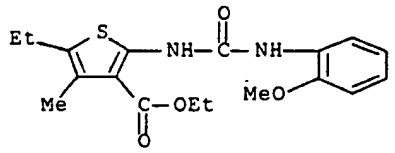
RN 106667-26-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-4-methyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



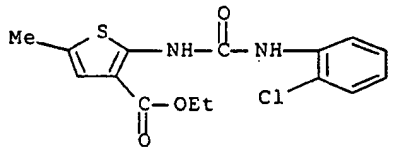
RN 106667-27-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-4-methyl-2-[[[(2-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



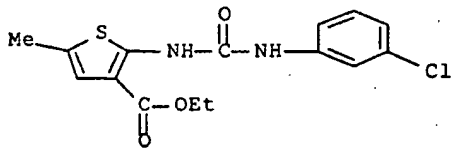
RN 106667-28-1 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



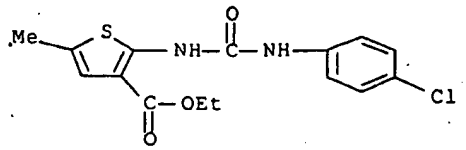
RN 106667-30-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-chlorophenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



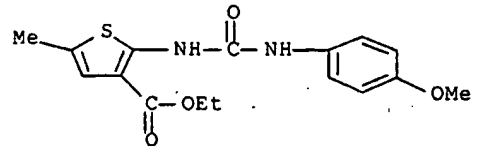
RN 106667-31-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(3-chlorophenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



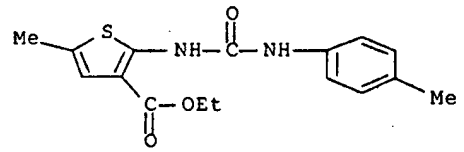
RN 106667-32-7 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-chlorophenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



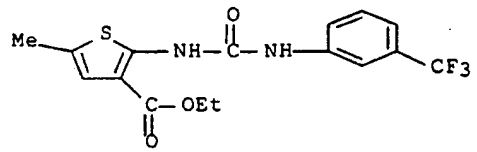
RN 106667-33-8 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-methoxyphenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



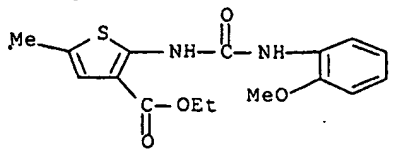
RN 106667-34-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-methyl-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



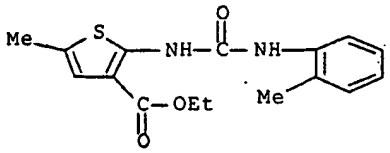
RN 106667-35-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-methyl-2-[[[[3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



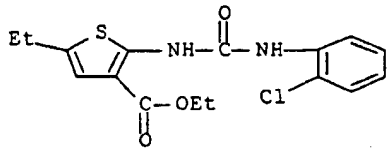
RN 106667-39-4 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-5-methyl-, ethyl ester (9CI) (CA INDEX NAME)



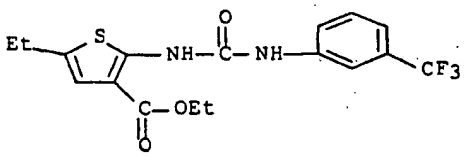
RN 106667-40-7 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-methyl-2-[[[(2-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



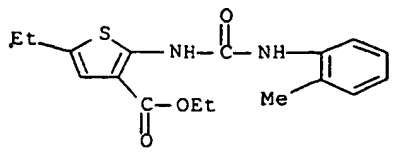
RN 106667-45-2 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-chlorophenyl)amino]carbonyl]amino]-5-ethyl-, ethyl ester (9CI) (CA INDEX NAME)



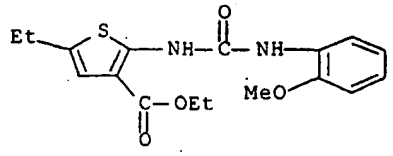
RN 106667-46-3 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[[[3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



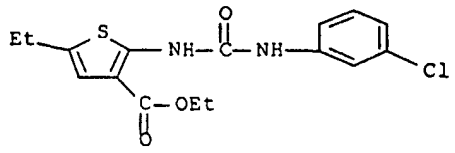
RN 106667-47-4 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[[(2-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



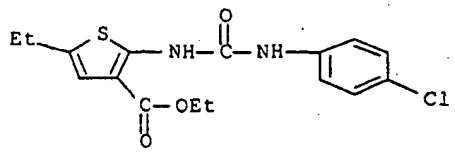
RN 106667-48-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-ethyl-2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



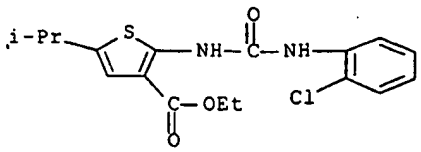
RN 106667-49-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(3-chlorophenyl)amino]carbonyl]amino]-5-ethyl-, ethyl ester (9CI) (CA INDEX NAME)



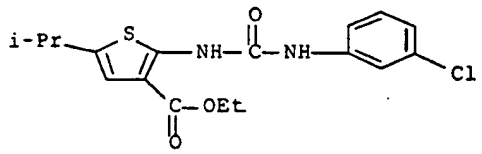
RN 106667-50-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-chlorophenyl)amino]carbonyl]amino]-5-ethyl-, ethyl ester (9CI) (CA INDEX NAME)



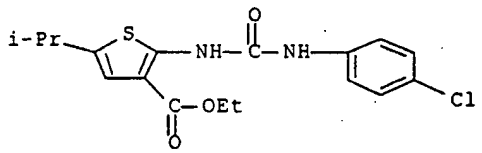
RN 106667-67-8 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-chlorophenyl)amino]carbonyl]amino]-5-(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



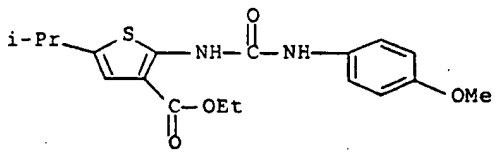
RN 106667-68-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(3-chlorophenyl)amino]carbonyl]amin
o]-5-(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



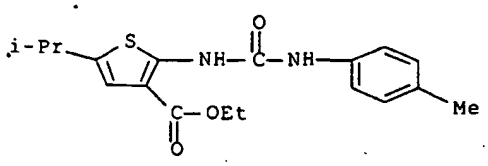
RN 106667-69-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-chlorophenyl)amino]carbonyl]amin
o]-5-(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



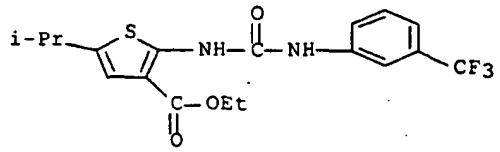
RN 106667-70-3 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-methoxyphenyl)amino]carbonyl]ami
no]-5-(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



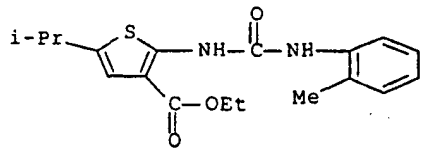
RN 106667-71-4 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-(1-methylethyl)-2-[[[(4-
methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX
NAME)



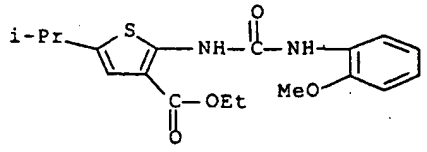
RN 106667-72-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-(1-methylethyl)-2-[[[[3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



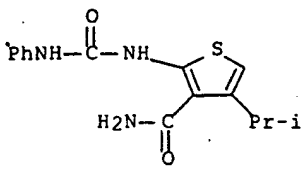
RN 106667-73-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-(1-methylethyl)-2-[[[(2-methylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



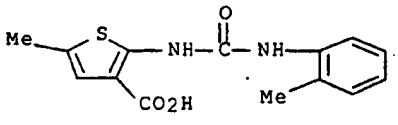
RN 106667-74-7 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-5-(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



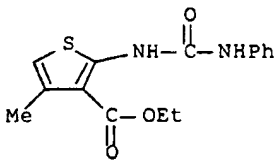
RN 106667-76-9 ZCAPLUS
CN 3-Thiophenecarboxamide, 4-(1-methylethyl)-2-[[(phenylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)



RN 106667-92-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-methyl-2-[[[(2-methylphenyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



RN 106667-99-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 4-methyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



RN 106668-00-2 ZCAPLUS
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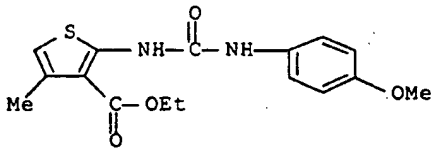
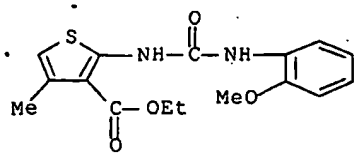
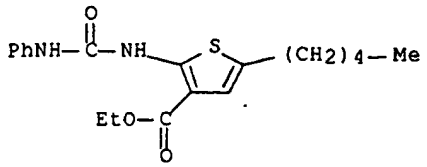


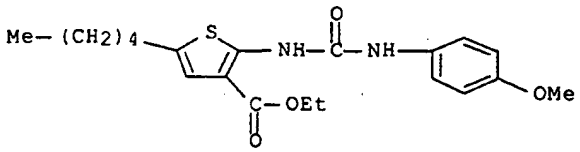
RN 106668-01-3 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



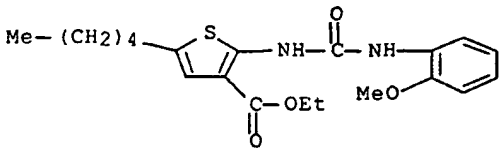
RN 106668-06-8 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-pentyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



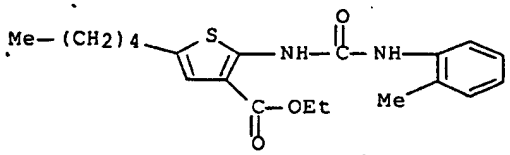
RN 106668-08-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-methoxyphenyl)amino]carbonyl]amino]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



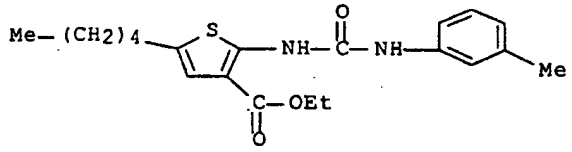
RN 106668-09-1 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-methoxyphenyl)amino]carbonyl]amino]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



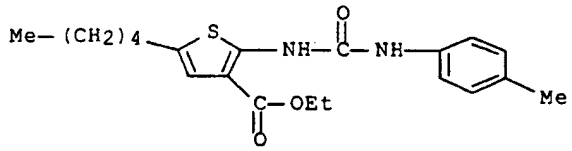
RN 106668-11-5 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2-methylphenyl)amino]carbonyl]amino]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



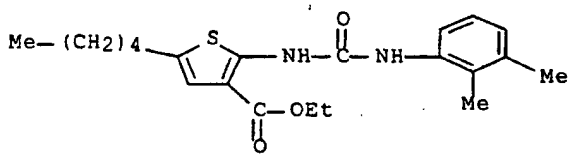
RN 106668-12-6 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(3-methylphenyl)amino]carbonyl]amin
o]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



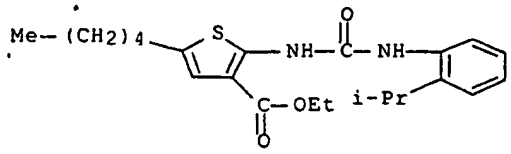
RN 106668-13-7 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(4-methylphenyl)amino]carbonyl]amin
o]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



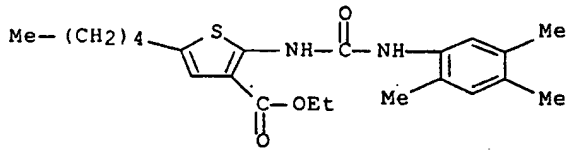
RN 106668-14-8 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[(2,3-dimethylphenyl)amino]carbonyl]
amino]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 106668-15-9 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 2-[[[[2-(1-methylethyl)phenyl]amino]carb
onyl]amino]-5-pentyl-, ethyl ester (9CI) (CA INDEX NAME)

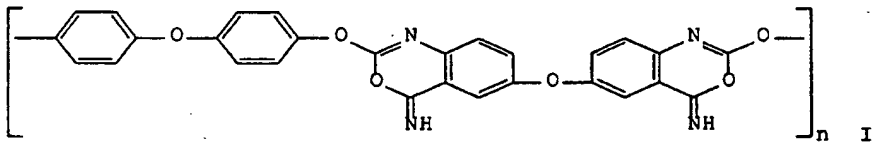


RN 106668-16-0 ZCAPLUS
CN 3-Thiophenecarboxylic acid, 5-pentyl-2-[[[(2,4,5-trimethylphenyl)amino]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME).



L11 ANSWER 4 OF 8

DOCUMENT NUMBER:	93:8757	
TITLE:	Thermostable heterocyclic polymers	
INVENTOR(S):	Chernikhov, A. Ya.; Yakovlev, M. N.; Lysova, V. B.; Gefter, E. L.; Shmagina, N. N.	
PATENT ASSIGNEE(S):	USSR	
SOURCE:	Ger. Offen., 53 pp. CODEN: GWXXBX	
	NUMBER	DATE
PATENT INFORMATION:	DE 2825413	800117
APPLICATION INFORMATION:	DE 78-2825413	780609
DOCUMENT TYPE:	**Patent**	
LANGUAGE:	German	



AB Thermostable heterocyclic polymers are prepd. by reactions of polysubstituted nitrile or ethynyl compds. with polyfunctional compds. Thus, 3.0 g 3,3'-dicyano-4,4'-diisocyanatodiphenyl ether and 2.0 g 4,4'-dihydroxydiphenyl ether were heated to 200.degree. over 1.5 h and then heated 1 h at 200.degree., 0.5 h at 250.degree., and 0.5 h at 300.degree., giving a 98.5% yield of a brown solid polymer (I) [73539-21-6] which showed 1.8% wt. loss after heating 100 h in air at 300.degree..

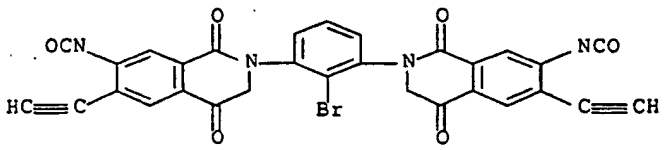
IT **73650-29-0P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(manuf. of heat-resistant)

RN 73650-29-0 ZCAPLUS
CN Urea, N,N''-[oxybis(2-cyano-4,1-phenylene)]bis[N'-[4-[[[(5-amino-3,4-dicyano-2-thienyl)amino]carbonyl]amino]methylphenyl]-, polymer with 2,2'-(2-bromo-1,3-phenylene)bis[6-ethynyl-2,3-dihydro-7-isocyanato-

1,4-isoquinolinedione] and (diaminomethylene)propanedinitrile (9CI) (CA INDEX NAME)

CM 1

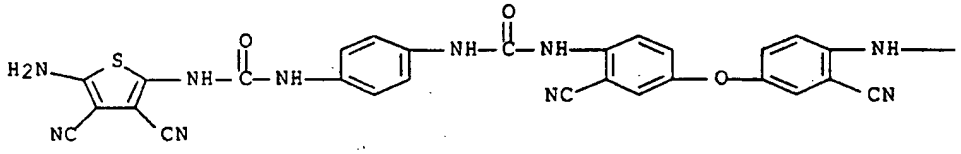
CRN 73601-04-4
CMF C30 H13 Br N4 O6



CM 2

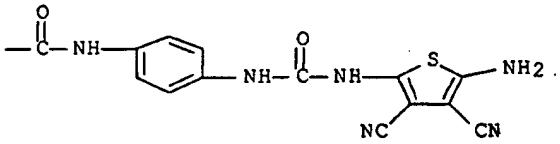
CRN 73412-10-9
CMF C44 H30 N16 O5 S2
CCI IDS
CDES *

PAGE 1-A



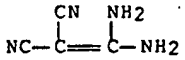
2 (D1—Me)

PAGE 1-B



CM 3

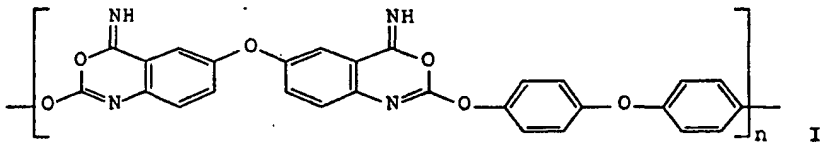
CRN 1187-12-8
CMF C4 H4 N4



L11 ANSWER 5 OF 8

DOCUMENT NUMBER:	92:216210
TITLE:	Thermostable heterocyclic polymers
INVENTOR(S):	Chernikhov, A. Ya.; Yakovlev, M. N.; Lysova, V. B.; Gefter, E. L.; Shmagina, N. N.
PATENT ASSIGNEE(S):	USSR
SOURCE:	Fr. Demande, 45 pp. CODEN: FRXXBL

	NUMBER	DATE
PATENT INFORMATION:	FR 2428655	800111
APPLICATION INFORMATION:	FR 78-17808	780614
DOCUMENT TYPE:	**Patent**	
LANGUAGE:	French	



I

AB Copolymers with good heat resistance are prepd. by the copolymn. of .gtoreq.1 monomer (and/or oligomer) contg. multiple CN and/or C.tplbond.CH groups as well as other functional groups such as NCO, NCS, NH2, OH, NSO, or SH groups with .gtoreq.1 other monomer (and/or oligomer) contg. functional groups such as OH, NCO, NH2, SH, NCS, or NSO groups. The nitrile and/or ethynyl groups are located in the alpha, ortho, or peri position with respect to the other functional groups and cause the formation of heterocyclic rings during polymn. The polymers contain arom. rings. Some of the 44 polymers were prepd. from decaboranes, silanes, siloxanes, cyclotriphosphazenes, phosphates, or halogen-contg. compds. Thus, 3.0 g bis(3-cyano-4-isocyanatophenyl) ether and 2 g bis(4-hydroxyphenyl) ether were heated at .ltoreq.300.degree. to prep. 98.5% copolymer I [73539-21-6], which lost 1.8% of its wt. during 100 h at 300.degree. in air.

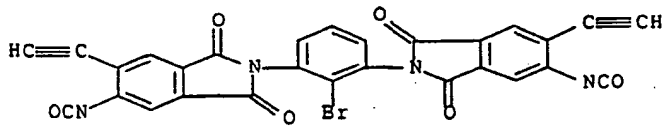
IT **73650-30-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and heat resistance of)

RN 73650-30-3 ZCAPLUS

CN Urea, N,N''-[oxybis(2-cyano-4,1-phenylene)]bis[N'-[4-[[[(5-amino-3,4-dicyano-2-thienyl)amino]carbonyl]amino]methylphenyl]-, polymer with 2,2'-(2-bromo-1,3-phenylene)bis[5-ethynyl-6-isocyanato-1H-isoindole-1,3(2H)-dione] and (diaminomethylene)propanedinitrile (9CI) (CA INDEX NAME)

CM 1

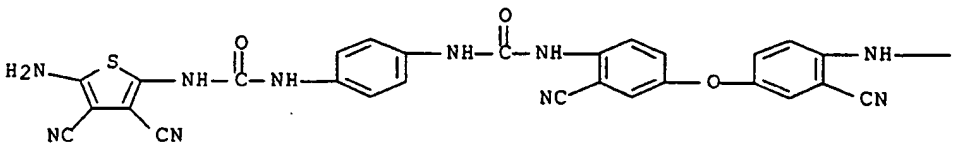
CRN 73601-05-5
CMF C28 H9 Br N4 O6



CM 2

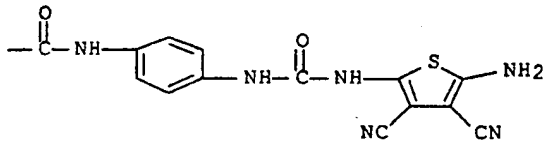
CRN 73412-10-9
CMF C44 H30 N16 O5 S2
CCI IDS
CDES *

PAGE 1-A



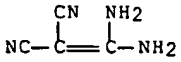
2 (D1—Me)

PAGE 1-B



CM 3

CRN 1187-12-8
CMF C4 H4 N4

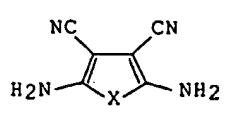


L11 ANSWER 6 OF 8

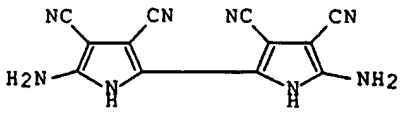
DOCUMENT NUMBER:	92:199262
TITLE:	Thermostable heterocyclic polymers
INVENTOR(S):	Chernikhov, A. Ya.; Yakovlev, M. N.; Lysova, V. B.; Gefter, E. L.; Shmagina, N. N.
PATENT ASSIGNEE(S):	USSR
SOURCE:	Fr. Demande, 44 pp. CODEN: FRXXBL

	NUMBER	DATE
PATENT INFORMATION:	FR 2428654	800111
APPLICATION INFORMATION:	FR 78-17665	780613

DOCUMENT TYPE: **Patent**
LANGUAGE: French



I



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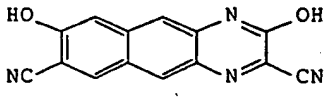
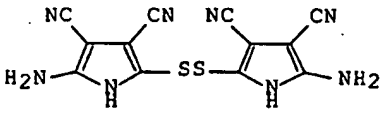
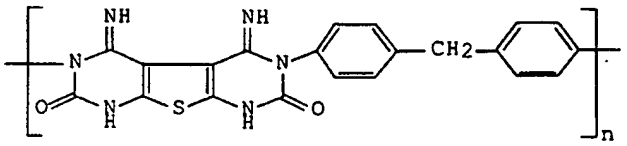


III



IV



VI

AB Copolymers with good heat resistance are prepd. by the copolymn. of polyfunctional isocyanates with compds. having .gtoreq.2 sets of a CN group and an NH2 group or a CN group and a OH group attached to adjacent C atoms, e.g., I (X = S, O, NH), (H2N)2C:C(CN)2, II, 3-bromo-1,5-dicyano-2,4-benzenediol, III, a siloxane contg. Si-bonded 4-amino-3-cyanophenyl groups, 2,3-dicyano-5,6-difluoro-1,4-benzenediol, and IV. The polyisocyanates are (4-OCNC6H4)2CH2 (V), (4-OCNC6H4)2O, polymethylenepolyphenylene isocyanates, (4-OCNC6H4)2P(O)CF3, 4,4'-diisocyanato-3,3',5,5'-tetraphenyl-1,1'-biphenyl, a bis(isocyanatophenyl) deriv. of decaborane, 1,3,5-triisocyanatocyclohexane, isocyanate-terminated arom. polyamides, and similar compds. The copolymn. causes the formation of heterocyclic rings from the NH2 (or OH), CN, and NCO groups. Some of the 40 copolymers were prepd. in the presence of a solvent to give copolymers contg. small pores. Thus, 3.28 g I (X = S) and 5 g V were heated at 170-200.degree. for 5 h and 300.degree. for 0.5 h to prep. 99% copolymer VI [73417-09-1], which lost 3.2% of its wt. during 500 h at 300.degree. in air.

IT **73412-11-0P**

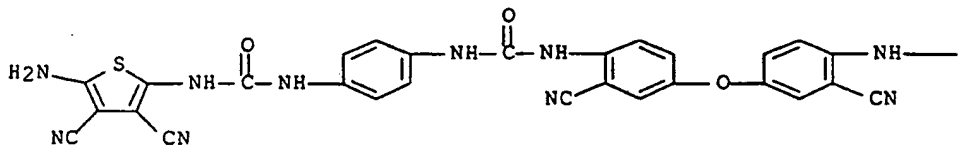
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and heat resistance of)

RN 73412-11-0 ZCAPLUS

CN Urea, N,N''-[oxybis(2-cyano-4,1-phenylene)]bis[N'-[4-[[[(5-amino-3,4-dicyano-2-thienyl)amino]carbonyl]amino]methylphenyl]-, polymer with 2,2'-(2-bromo-1,3-phenylene)bis[5-isocyanato-1H-isoindole-1,3(2H)-dione] and (diaminomethylene)propanedinitrile (9CI) (CA INDEX NAME)

CM 1

CRN 73412-10-9
CMF C44 H30 N16 O5 S2
CCI IDS
CDES *



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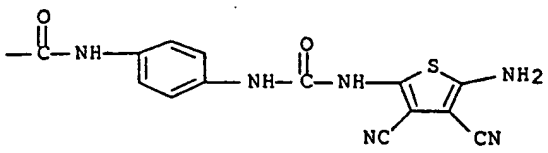
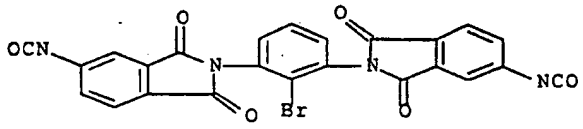


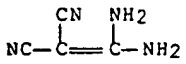
CM 2

CRN 73412-09-6
CMF C24 H9 Br N4 O6



CM 3

CRN 1187-12-8
CMF C4 H4 N4

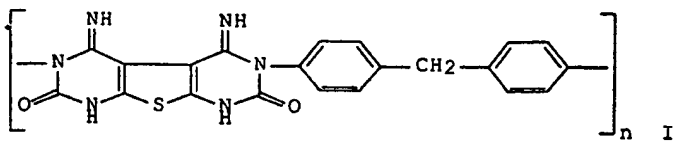


L11 ANSWER 7 OF 8

DOCUMENT NUMBER:	92:181880
TITLE:	Heat-resistant heterocyclic polymers
INVENTOR(S):	Chernikhov, A. Ya.; Yakovlev, M. N.; Lysova, V. B.; Gefter, E. L.; Shmagina, N. N.
PATENT ASSIGNEE(S):	USSR
SOURCE:	Ger. Offen., 48 pp. CODEN: GWXXBX

	NUMBER	DATE
PATENT INFORMATION:	DE 2825395	800110
APPLICATION INFORMATION:	DE 78-2825395	780609

DOCUMENT TYPE: **Patent**
LANGUAGE: German



I

AB Heat-resistant heterocyclic polymers are prepd. by reaction of bis(amino or hydroxy nitriles) (with OH or NH2 groups in alpha, beta, ortho, and/or peri relation to CN) with polyisocyanates. Thus, 3.28 g 2,5-diamino-3,4-dicyanothiophene and 5 g diphenylmethane-4,4'-diisocyanate were mixed under Ar and heated 2 h at 170-90.degree., 1 h at 200.degree., and 30 min at 300.degree. to give I [73417-09-1], which suffered a wt. loss of 3.2% in 500 h at 300.degree..

IT **73412-11-0P**

RL: IMF (Industrial manufacture); PREP (Preparation)
(manuf. of heat-resistant)

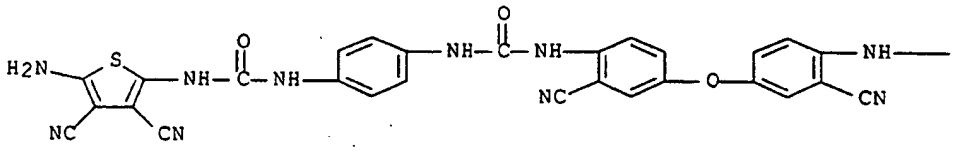
RN 73412-11-0 ZCAPLUS

CN Urea, N,N''-[oxybis(2-cyano-4,1-phenylene)]bis[N'-[4-[[[(5-amino-3,4-dicyano-2-thienyl)amino]carbonyl]amino]methylphenyl]-, polymer with 2,2'-(2-bromo-1,3-phenylene)bis[5-isocyanato-1H-isoindole-1,3(2H)-dione] and (diaminomethylene)propanedinitrile (9CI) (CA INDEX NAME)

CM 1

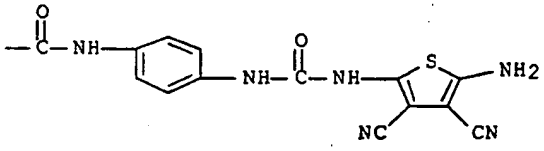
CRN 73412-10-9
CMF C44 H30 N16 O5 S2
CCI IDS
CDES *

PAGE 1-A



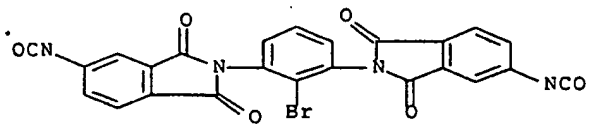
2 (D1—Me)

PAGE 1-B



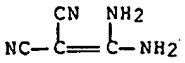
CM 2

CRN 73412-09-6
CMF C24 H9 Br N4 O6



CM 3

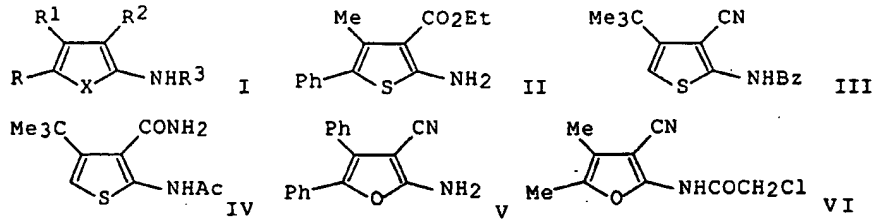
CRN 1187-12-8
CMF C4 H4 N4



L11 ANSWER 8 OF 8

DOCUMENT NUMBER:	92:110837
TITLE:	Plant growth regulator containing oxygen or sulfur
INVENTOR(S):	Dickore, Karlfried; Luerssen, Klaus
PATENT ASSIGNEE(S):	Bayer A.-G., Fed. Rep. Ger.
SOURCE:	Eur. Pat. Appl., 84 pp. CODEN: EPXXDW

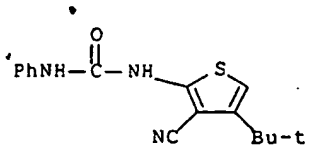
	NUMBER	DATE
PATENT INFORMATION:	EP 4931	791031
PRIORITY APPLN. INFO.:	DE 78-2817449	780421
DOCUMENT TYPE:	**Patent**	
LANGUAGE:	German	



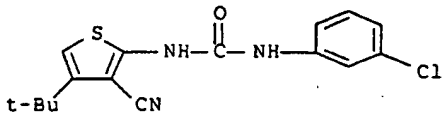
AB I [R = H, alkyl, aryl; R1 = alkyl, aryl; R2 = cyano, carbamoyl, carbalkoxy; R3 = H or C(:Y)R4 (Y = O or S; R4 is a wide range of substituents); X = O or S] (81 par) were tested and showed a range of growth accelerant or retardant properties over a range of plants. Thus, MeCOCH2Ph, NCCH2CO2Et, and S were heated with morpholine in EtOH to give II. Other compds. prepd. included, e.g., III-VI.

IT **72965-39-0P 72965-40-3P 72965-41-4P 72965-42-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as plant growth regulator)

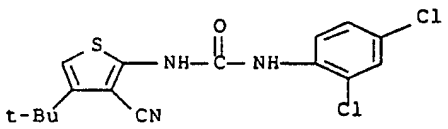
RN 72965-39-0 ZCAPLUS
CN Urea, N-[3-cyano-4-(1,1-dimethylethyl)-2-thienyl]-N'-phenyl- (9CI) (CA INDEX NAME)



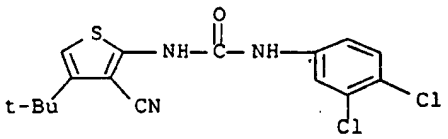
RN 72965-40-3 ZCAPLUS
CN Urea, N-(3-chlorophenyl)-N'-[3-cyano-4-(1,1-dimethylethyl)-2-thienyl]- (9CI) (CA INDEX NAME)



RN 72965-41-4 ZCAPLUS
CN Urea, N-[3-cyano-4-(1,1-dimethylethyl)-2-thienyl]-N'-(2,4-dichlorophenyl)- (9CI) (CA INDEX NAME)

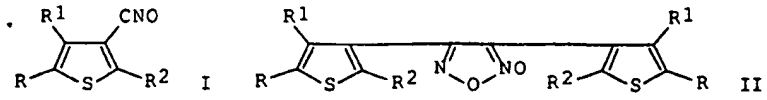


RN 72965-42-5 ZCAPLUS
CN Urea, N-[3-cyano-4-(1,1-dimethylethyl)-2-thienyl]-N'-(3,4-dichlorophenyl)- (9CI) (CA INDEX NAME)



L13 4 L12 NOT P/DT

L13 ANSWER 1 OF 4
114:143025 The effect of electronic factors on the dimerization and isomerization of substituted nitrile oxides of the thiophene series. Krayushkin, M. M.; Kalik, M. A.; Loktionov, A. A. (Inst. Org. Khim., Moscow, 117913, USSR). Khim. Geterotsikl. Soedin. (7), 909-13 (Russian) 1990. CODEN: KGSSAQ. ISSN: 0453-8234.
GI

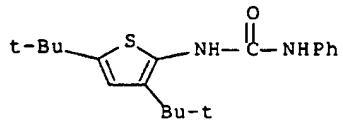


AB 3-Thiophenecarbonitrile oxides I (R = R1 = R2 = Me; R = R2 = Me, R1 = Me2CH), when boiled in benzene or toluene, were isomerized to isocyanates, which were isolated as ureas (by reaction with PhNH2). When R1 and/or R2 was an electron-withdrawing group, e.g., SO2Me, Br, I were dimerized to form furoxans (II). BF3.cntdot.OEt2-catalyzed reactions were also examd.

IT **132574-90-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 132574-90-4 ZCA

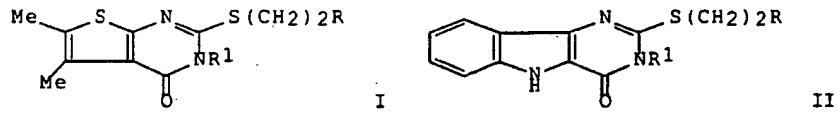
CN Urea, N-[3,5-bis(1,1-dimethylethyl)-2-thienyl]-N'-phenyl- (9CI) (CA INDEX NAME)



L13 ANSWER 2 OF 4

114:6332 Synthesis and pharmacological activity of 2-alkylthio-substituted thieno[2,3-d]pyrimidin-4-one and 5H-pyrimido[5,4-b]indol-4-one. Russo, F.; Santagati, N. A.; Venturini, R.; Spampinato, S. (Ist. Chim. Farm. Tossicol., Univ. Catania, Catania, 95125, Italy). Pharmazie, 45(7), 493-5 (English) 1990. CODEN: PHARAT. ISSN: 0031-7144.

GI

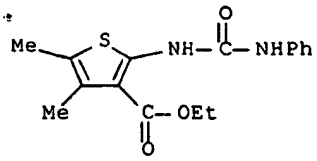


AB Quaternary salts I and II (R = N-methyldimethylaminium, -piperidinium and -morpholinium iodide; R1 = Et, Ph) of several alkylthio- substituted derivs. of thienopyrimidinone and pyrimidoindolone were prepd. by condensation of the corresponding mercapto compds. with a 2-chloroalkyl tertiary amine and subsequent quaternization with MeI. The salts (I) and (II) were then screened for potential spasmolytic activity. (I) displayed a potent spasmolytic activity in both in vitro and in vivo assays.

IT **106666-26-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclization of)

RN 106666-26-6 ZCA

CN 3-Thiophenecarboxylic acid, 4,5-dimethyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



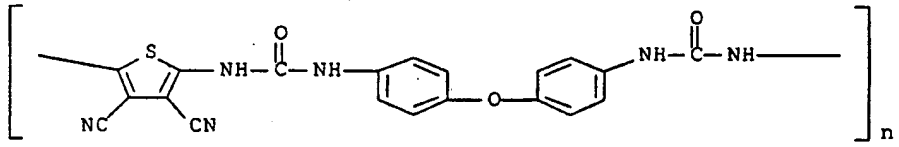
L13 ANSWER 3 OF 4
93:47237 Effect of preparation methods on the mixed-unit nature of polyheteroarylenes. Chernikhov, A. Ya.; Yakovlev, M. N.; Isaeva, V. A.; Ostrovskaya, N. K.; Kotov, Yu. I.; Gefter, E. L.; Malyshev, A. I. (USSR). Plast. Massy (4), 39-42 (Russian) 1980. CODEN: PLMSAI. ISSN: 0554-2901.

AB Polyoxadiazoles were prepd. by high-temp. polymn. of dicarboxylic acids with dihydrazides in polyphosphoric acid; poly(hydroxy amides) were prepd. by low-temp. polymn. in AcNMe2 and converted to polybenzoxazoles by heating in vacuo; and the same procedure was used for prepn. of poly(cyano ureas) and cyclization to polyquinazolones. Structural heterogeneity was introduced in the formation of polymer chains as well in the cyclization steps. Polymers prepd. in soln. had the lowest heterogeneity.

IT **74159-21-0 74159-22-1**
RL: USES (Uses)
(structural heterogeneity of)

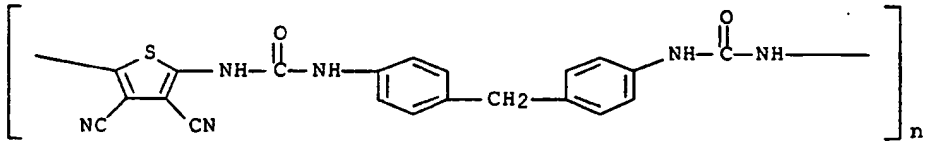
RN 74159-21-0 ZCA

CN Poly[(3,4-dicyano-2,5-thiophenediyl)iminocarbonylimino-1,4-phenyleneoxy-1,4-phenyleneiminocarbonylimino] (9CI) (CA INDEX NAME)



RN 74159-22-1 ZCA

CN Poly[(3,4-dicyano-2,5-thiophenediyl)iminocarbonylimino-1,4-phenylenemethylene-1,4-phenyleneiminocarbonylimino] (9CI) (CA INDEX NAME)



L13 ANSWER 4 OF 4
72:21653 Heterocyclizations. V. Synthesis of thieno-tetrahydro benzothieno-, pyrazolo-, triazolo-, and pyridopyrimidines and naphth- and thienooxazines. Capuano, Lilly; Welter, Mechthild; Zander, Rita (Univ. Saarlandes, Saarbruecken, Ger.). Chem. Ber.,

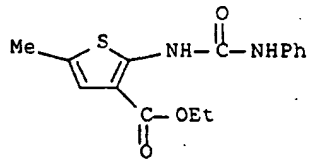
102(11), 3698-706 (German) 1969. CODEN: CHBEAM.

AB 2-Amino-5-methyl-3-carbethoxythiophene, 2-amino-3-carbethoxy-4,5,6,7-tetrahydrobenzothiophene, 3-amino-2-methyl-4-carbethoxypyrazole, 3-amino-2-phenyl-4-carbethoxypyrazole, 5-amino-1-benzyl-4-carbethoxy-1H-1,2,3-triazole, Et 3-amino-2-pyridine carboxylate, and Me 2-amino-3-pyridinecarboxylate react with isocyanates in the presence of Et3N or alc. KOH to afford ureas, such as N-methyl-N'-(5-methyl-3-carbethoxy-2-thienyl)urea, N-phenyl-N'-(5-methyl-3-carbethoxy-2-thienyl)urea, N-methyl-N'-(3-carbethoxy-4,5,6,7-tetrahydro-2-benzothiazolyl)urea, N-phenyl-N'-(2-carbethoxy-3-pyridyl)urea, and N-phenyl-N'-(3-carbmethoxy-2-pyridyl)urea, or carbamoylimino derivs., such as 3-methylcarbamoylimino-2-methyl-4-carbethoxy-1-methylcarbamoyl-4-pyrazoline, 3-methylcarbamoylimino-2-phenyl-4-carbethoxy-1-methylcarbamoyl-4-pyrazoline, and 5-methylcarbamoylimino-1-benzyl-4-carbethoxy-2-methylcarbamoyl-3-triazoline, which are cyclized by aq. NaOH to condensed pyrimidines, such as 2,4-dioxo-3,6-dimethyl-1,2,3,4-tetrahydrothieno-[2,3-d]pyrimidine, 2,4-dioxo-6-methyl-3-phenyl-1,2,3,4-tetrahydrothieno[2,3-d]pyrimidine, 2,4-dioxo-3-methyl-1,2,3,4,5,6,-7,8-octahydrobenzothieno[2,3-d]pyrimidine, 4,6-dioxo-1,5-dimethyl-4,5,6,7-tetrahydropyrazolo[3,4-d]pyrimidine, 4,6-dioxo-5-methyl-1-phenyl-4,5,6,7-tetrahydropyrazolo[3,4-d]pyrimidine, 5,7-dioxo-6-methyl-3-benzyl-4,5,6,7-tetrahydro-3H-1,2,3-triazolo[4,5-d]pyrimidine, 2,4-dioxo-3-phenyl-1,2,3,4-tetrahydropyrido[3,2-d]pyrimidine, and 2,4-dioxo-3-methyl-1,2,3,4-tetrahydropyrido[2,3-d]pyrimidine. Me 2-hydroxy-1-naphthalene-carboxylate and Me 1-hydroxy-2-naphthalenecarboxylate react with PhNCO in the presence of CH2N2 to give urethanes, 1-carbomethoxy-2-naphthylcarbanilate and 2-carbomethoxy-1-naphthylcarbanilate, and with MeNCO to give naphthoxazines, 1,3-dioxo-2-methyl-2,3-dihydro-1H-naphtho[1,2-e]-1,3-oxazine and 2,4-dioxo-3-methyl-3,4-dihydro-2H-naphtho[2,1-e]-1,3-oxazine, the reaction rate being decreased with increase of the chelate stability. 4-Hydroxy-2-methyl-3-carbethoxythiophene gives under the similar conditions only 4-hydroxy-2-methyl-3-carbethoxythiophene, which is cyclized by alc. KOH to give 2,4-dioxo-3,5-dimethyl-1,2,3,4-tetrahydrothieno[3,4-e]-1,3-oxazine.

IT **24542-96-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 24542-96-9 ZCA

CN 3-Thiophenecarboxylic acid, 5-methyl-2-[[(phenylamino)carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



FILE 'CAOLD' COVERS 1957-1966
L14 0 L9

DERWENT WORLD PATENTS INDEX

L19 ANSWER 1 OF 5 WPIDS
TITLE: New amino-substd. thieno-(2,3,-d)-oxazine derivs. - with animal growth-promoting activity, prepd. e.g. by cyclisation of carboxy thienyl urea derivs..

DERWENT CLASS: B03 C02
INVENTOR(S): BERSCHAUER, F; DEJONG, A; HALLENBACH, W; LINDEL, H; SCHEER, M
PATENT ASSIGNEE(S): (FARB) BAYER AG
COUNTRY COUNT: 12
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
DE 3540377	A	870521	(8721)*		26		<--
EP 223140	A	870527	(8721)	GE			
R: AT BE CH DE FR GB IT LI NL							
JP 62114989	A	870526	(8726)				
ZA 8608609	A	870512	(8735)				
US 4760063	A	880726	(8832)		14		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 3540377	A	DE 85-3540377	851114
EP 223140	A	EP 86-115191	861103
JP 62114989	A	JP 86-262869	861106
ZA 8608609	A	ZA 86-8609	861113
US 4760063	A	US 86-929921	861112

PRIORITY APPLN. INFO: DE 85-3540377 851114
REFERENCE PATENTS: No-SR.Pub
BASIC ABSTRACT:

DE 3540377 A UPAB: 960129

Amino-substd. thieno-oxazinone derivs. of formula (I), their isomers of formula (Ia) and their isomer mixtures are new. (i) = opt. substd. thiophene ring; R3 = H or opt. substd. alkyl, cycloalkyl, alkenyl or aryl; R4 = opt. substd. alkyl, cycloalkyl, alkenyl or aryl; or NR3R4 = saturated heterocycle opt. contg. further hetero atoms.

Starting materials of formulae (II) and (IIa) are also new and claimed. (I) and (Ia) may be prepd. by various routes, e.g. by cyclisation of carboxythienyl-urea derivs. of formula (II) or (IIa) with condensation agents, (where R5 and R6 are H, halogen, NO2, CN or opt. substd. alkyl, alkoxy, alkylthio, aryl, alkoxycarbonyl, arylcarbonyl or aryloxycarbonyl, or R5 and R6 together with the attached C-atoms form an opt. saturated carbocyclic ring; and the carboxy and ureido groups are attached to adjacent C-atoms of the thiophene ring).

USE - (I) are useful as efficiency promoting agents to animals. They promote and accelerate growth and milk and wool production, and improve feed utilisation and meat quality and may be used to shift the flesh/fat ratio in favour of flesh. Dosage is generally ca. 0.001-50 (pref. 0.01-5) mg/kg/day.. In studies in rats, matched groups each of 12 female SPF rats were fed ad lib with a standard rat feed. Test animals received feed contg. 25ppm test cpd., and after 13 days weight gain was found to be 102% to 119% of that observed in control animals, depending on the test cpd. used. .

L19 ANSWER 2 OF 5 WPIDS
TITLE: New and known thienyl urea or isourea derivs. - used as animal growth promoters.
DERWENT CLASS: B03 C02
INVENTOR(S): BERSCHAUER, F; DEJONG, A; HALLENBACH, W; LINDEL, H; SCHEER, M
PATENT ASSIGNEE(S): (FARB) BAYER AG
COUNTRY COUNT: 19
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC

DE 3529247	A	861120 (8648)*		79	<--
EP 202538	A	861126 (8648)	GE		<--
R: AT BE CH DE FR GB IT LI NL SE					
AU 8657217	A	861120 (8702)			
JP 61268678	A	861128 (8702)			
DK 8602300	A	861118 (8707)			
BR 8602224	A	870113 (8708)			
ZA 8603645	A	861110 (8708)			
FI 8602201	A	861118 (8711)			
HU 41244	T	870428 (8721)			
CS 8603569	A	880115 (8810)			
ES 8801815	A	880501 (8824)			
EP 202538	B	881228 (8901)	GE		<--
R: AT BE CH DE FR GB IT LI NL SE					
DE 3661493	G	890202 (8906)			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 3529247	A	DE 85-3529247	850816
EP 202538	A	EP 86-106209	860506
JP 61268678	A	JP 86-109713	860515
ZA 8603645	A	ZA 86-3645	860520
ES 8801815	A	ES 86-555052	860516

PRIORITY APPLN. INFO: DE 85-3517706 850517; DE 85-3529247 850816
REFERENCE PATENTS: 1.Jnl.Ref ; AT 311994; BR 7802533; DE 2510936; DE 2645613; DE 2648248; US 3989505

BASIC ABSTRACT:

DE 3529247 A UPAB: 930922

(A)Thienyl (iso)ureas of formula (Ia) are new n = 3-6; A = N(R4)CONR5R6 or N(R4)C(OR5)=NR6; R'3 = (a) CN, COOR7, CONR8R9 or COR10 when n = 3, 5 or 6, or (b) COOMe, (2-4C alkenyloxy)carbonyl, CONR8R9 or COR10 when n = 4; R4 = H or alkyl; R5 and R6 = H, opt. substd. alkyl, cycloalkyl, alkenyl, opt. substd. aryl or heteroaryl; R7 = H, opt. substd. alkyl, cycloalkyl, alkenyl or opt. substd. aryl; R8 = H, alkyl or cycloalkyl; R9 = H, opt. substd. alkyl or opt.substd. aryl; R10 = opt. substd. alkyl or opt. substd. aryl.

(B) Thienyl isocyanates of formula (II) are also new, except for 3-methoxycarbonyl -2-thienyl isocyanate; R1 and R2 = H, halogen, NO2, CN, alkoxy, alkylthio, haloalkoxy, haloalkylthio, alkoxyalkyl or opt. substd. alkyl, acyl, aroyl, or aryl, or R1+R2 forms an opt. substd. satd. or unsatd. carbocyclic ring opt. with a carbonyl function; R''3 = COOR''7, CONR8R9 or COR10; R''7 = H, opt. substd. methyl, cycloalkyl, 2-4C alkenyl or opt. substd. aryl.

USE - Use of thienyl (iso)ureas of formula (I) is 'animal productivity promoters' (specifically growth promoters) is claimed. R3 = CN, COOR7, CONR8R9 or COR10.

L19 ANSWER 3 OF 5 WPIDS
TITLE: Heat-stable heterocyclic polymers - are prepd. from reaction of cpds. contg. cyano and/or ethynyl gps. with polyfunctional cpds..
DERWENT CLASS: A26 A81 A82 G02 G03
INVENTOR(S): LYSOVA, V B; TSCHERNICH, A Y; YAKOVLEV, M N
PATENT ASSIGNEE(S): (CHER-I) CHERNIKHOV A Y; (TSCH-I) TSCHERNICHOV A Y
COUNTRY COUNT: 4
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
DE 2825413	A	800117 (8004)*				<--
FR 2428655	A	800215 (8013)				<--
US 4229560	A	801021 (8045)				
IT 1105035	B	851028 (8713)				